Replacing the Controller & Ethernet Communication Modules

Technical Note – 10100122 Rev. A

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Safety Procedures

Before reading this Technical Note, please refer to the section on Safety Procedures in the Barak User's Manual.

About the Technical Note

The Technical Note describes the procedure for changing a Controller on the **Barak** printer.

Replacing a Controller

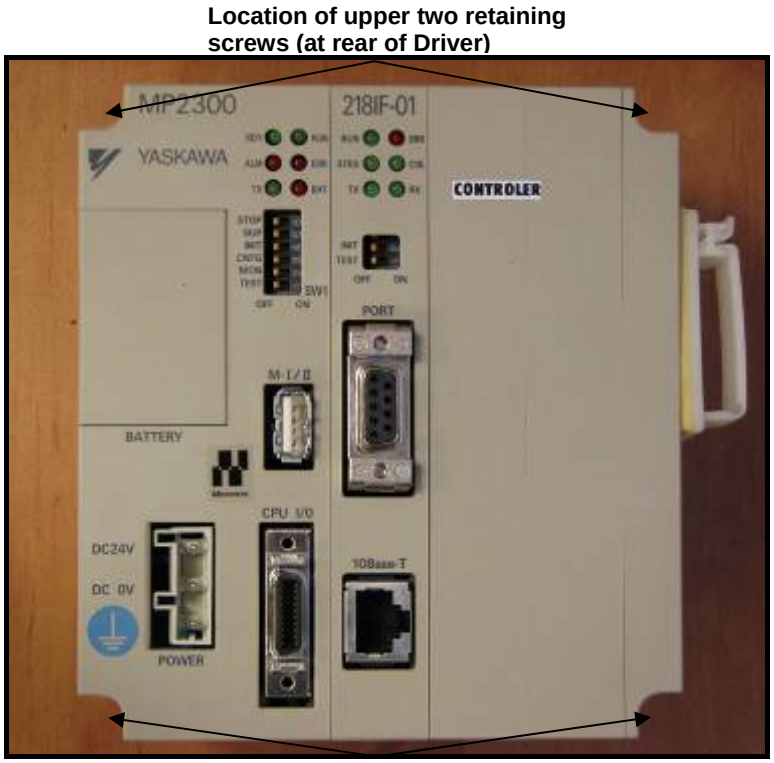
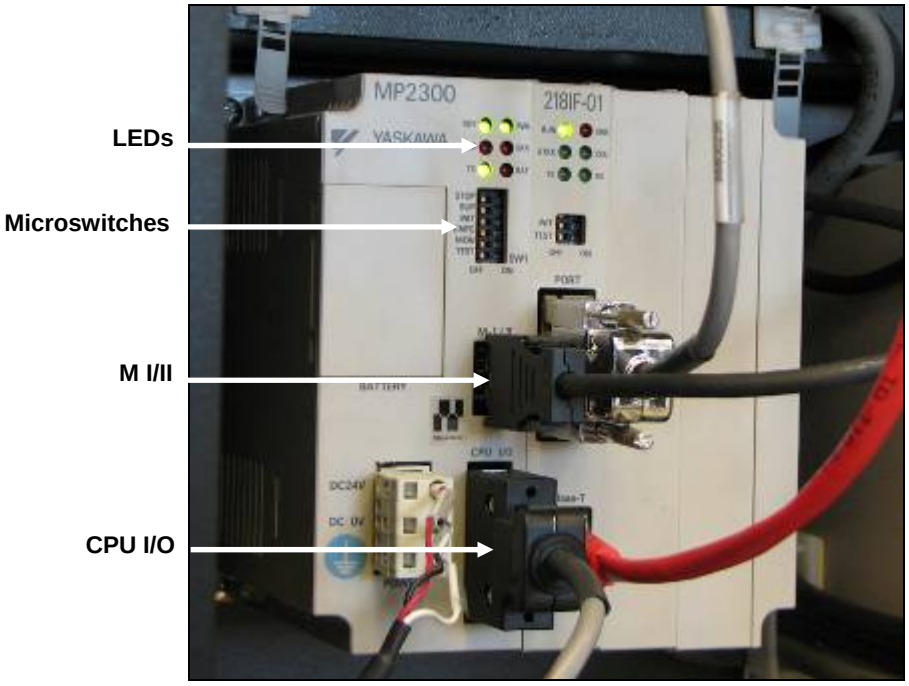


Figure 1: The Controller

➢ **To replace the Controller:**

1. Shut down the printer.
2. Disconnect the COMMUNICATION (10BASE-T), the PORT, the M I/II and the CPU I/O cables.
3. Carefully remove the four Philips screws that hold the CONTROLLER in place, and remove it.
4. Take the new CONTROLLER and attach it to the printer using the four Philips screws.

5. Reconnect the COMMUNICATION, the PORT, the M I/II and the CPU I/O cables, as shown below.



6. Before powering up the printer, set the INIT and CNFG micro switches to ON. These are the 3rd and 4th from the top of the micro switches.
7. Power up the printer.
8. Wait until the Run and Rdy LEDs turn green.
9. Switch the two micro switches back to OFF.

Replacing the Ethernet Communication Module

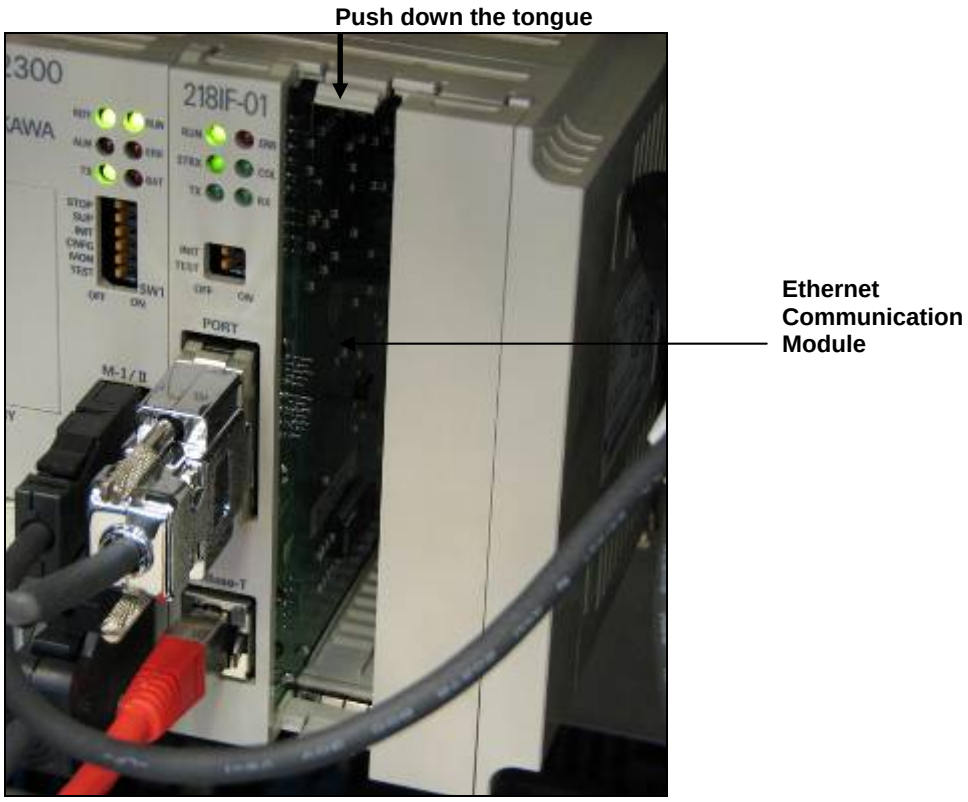


Figure 2: View of the Ethernet Communication Module

➢ **To replace the Controller:**

1. Shut down the printer.
2. Disconnect the COMMUNICATION (10BASE-T), and the PORT cables.
3. Using a slotted screwdriver, carefully push down the tongue that holds the module in place, and pull out the module.
4. Slide in the replacement module and reconnect the COMMUNICATION (10BASE-T), and the PORT cables.
5. Power up the printer.

Updating the Software

Installing Client Software

➢ **To update the Client Software:**

1. Install the Controller Client software from the installation CD:
CD > `Tools > Yaskawa > MPLoader-Client > Eng > Disk1 > Setup.exe`

2. Follow the installation instructions.

Entering the Communications Settings

1. Open the COMMUNICATION MANAGER:
`Start > Programs > YE_Applications > Communication Manager`.

2. To open the main COMMUNICATION MANAGER window, double click the COMMUNICATION MANAGER icon in the system tray:

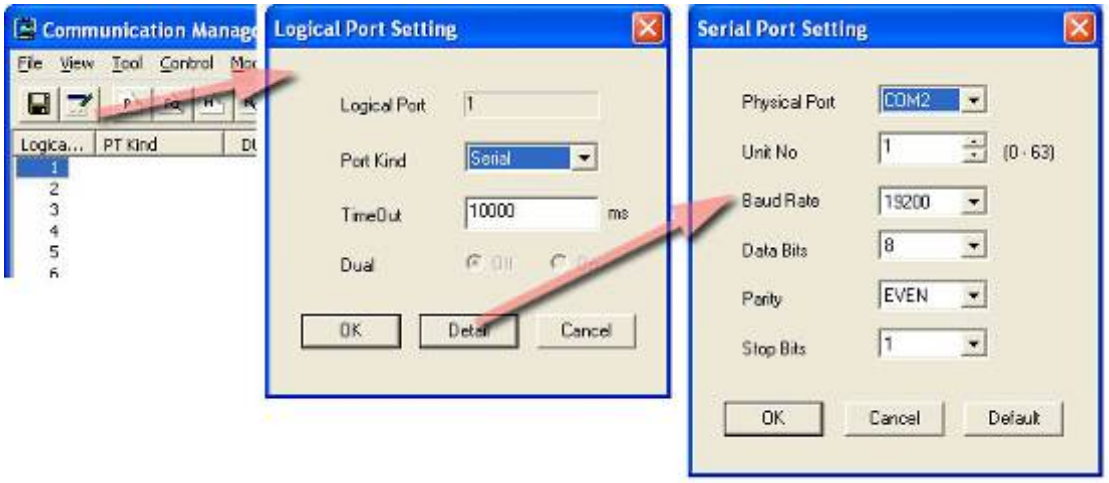
3. Define new logic port and set the following logic port settings:

   In the main list, select one of the logic ports number.

   Click Settings icon to open the LOGIC PORT SETTINGS dialog box.

   Set the PORT KIND TO SERIAL", the TIME OUT to 10000ms, and then click DETAIL.

   Set the Physical Port to COM2, (check in the Engineer dialog box, in case COM2 has not responded,) and the other parameters as in the following illustration.



4. To close the SERIAL PORT SETTING dialog box, click OK.

5. To close the logical PORT SETTING dialog box, click OK.
6. Click the SAVE icon in the ICON BAR to save the new settings.
7. Click YES to save the settings.

Installing / Updating the Motion System

- Use the CONTROLLER MOTION PROGRAM.

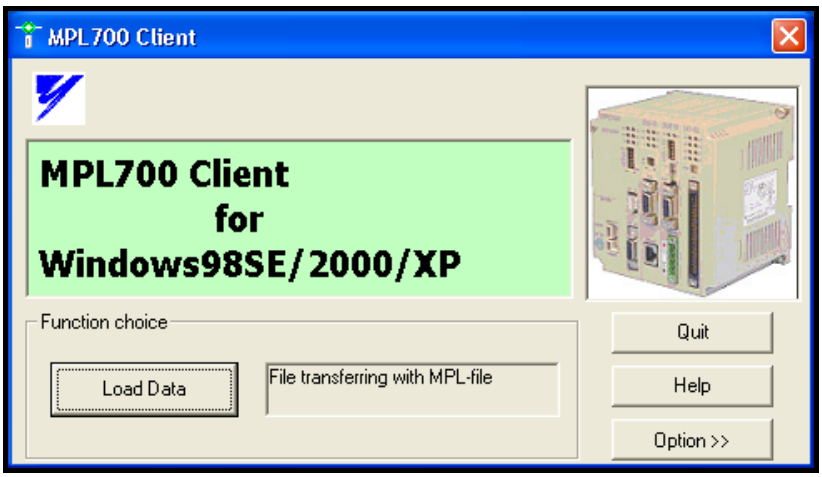
Part 1: Updating the Motion Program

1. Open the MPL700Client:

   `Start > Programs > YE_Applications > MPL700Client.`

   If a USER PRIVILEGES WARNING appears, click YES.

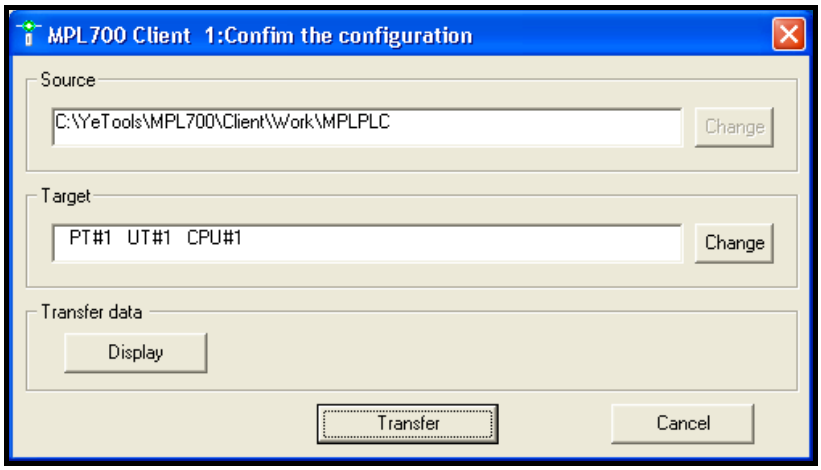
2. In the main dialog box, select LOAD DATA:

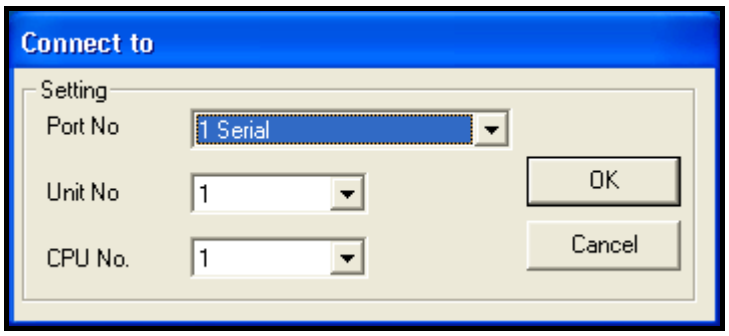


3. In the OPEN FILE dialog box, browse to the Matan FE folder (i.e. `C:\Program Files\Matan Barak FE`) and select the motion file `MOTIONx.x.YMW` from DRIVERS > CONTROLLER folder.

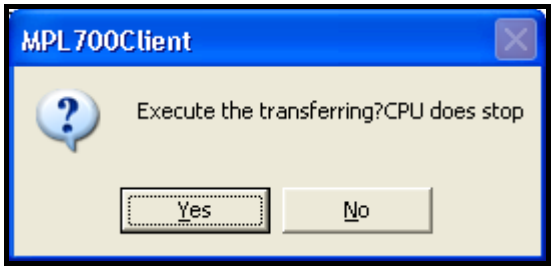
   The appropriate version number appears in the release notes. You can also ask your local Matan technician for this number.

4. In the CONFIRM THE CONFIGURATION dialog box, using the CHANGE command in the TARGET field, set the serial connection.

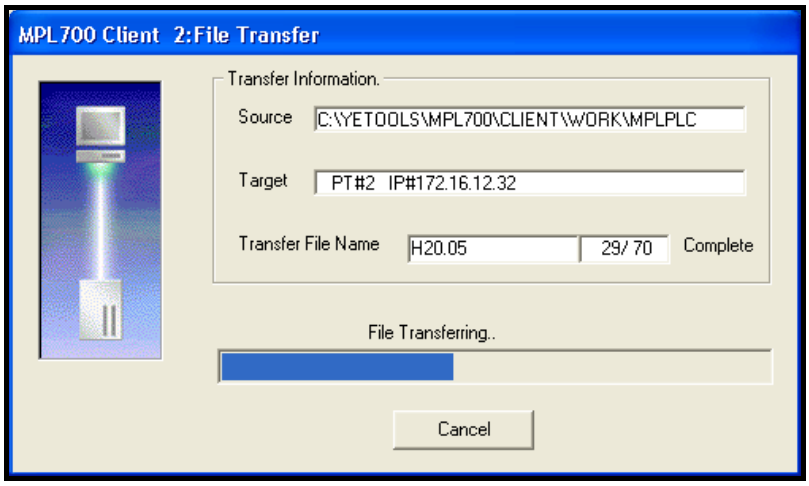




5. Click OK and then click TRANSFER.
6. Stop the CPU by clicking YES.

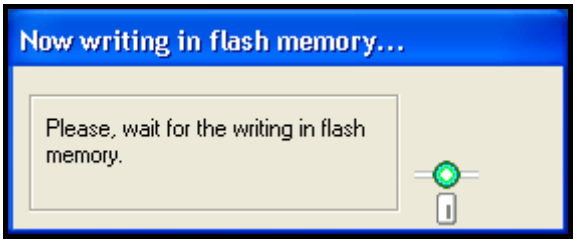


The upload process starts.

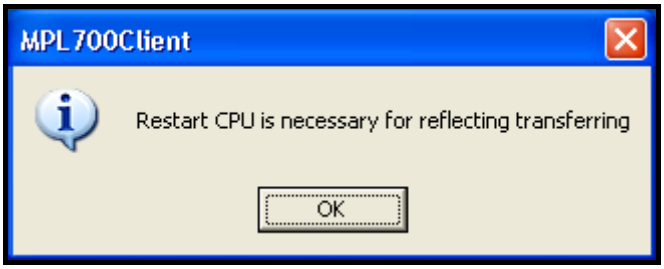


7. When the transfer is complete, click OK to write to the flash memory.

The following progress window appears.



8. Click OK and restart the CPU by clicking OK.



9. The MAIN SCREEN appears.
10. Quit the client and shut down the Workstation.
11. Shut down the printer and turn it on again.

Part 2: Driver's Servo Pack Settings

- Automatic Software Update

Automatic Software Update

When the CONTROLLER is switched on, it checks the DRIVER SERVO PACK settings version number. If the version is different from that stored on the CONTROLLER, it will update the settings to the new version.

When any action is carried out in the CONTROLLER (i.e., INIT, MEDIA FORWARD/BACKWARD and TENSION), a message appears asking the user to either update or not.

The action can take up to a minute to be performed.

After the update, you must shut down the printer and turn it on again.

If you did not succeed to load the drivers automatically the first time, you may try again. If you are unsuccessful, proceed to the next chapter.

Development Environment Manual Update

In order to carry out the following steps, you must install the MPE720 application.

Make sure that the Barak Front End is closed.

1. With the application installed, on your desktop, click the MPE720 icon.

   The MAIN SCREEN appears.

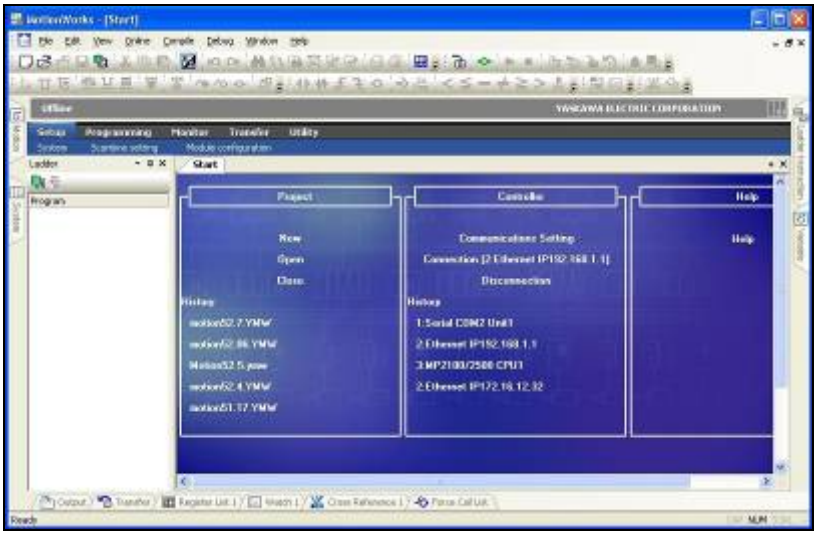


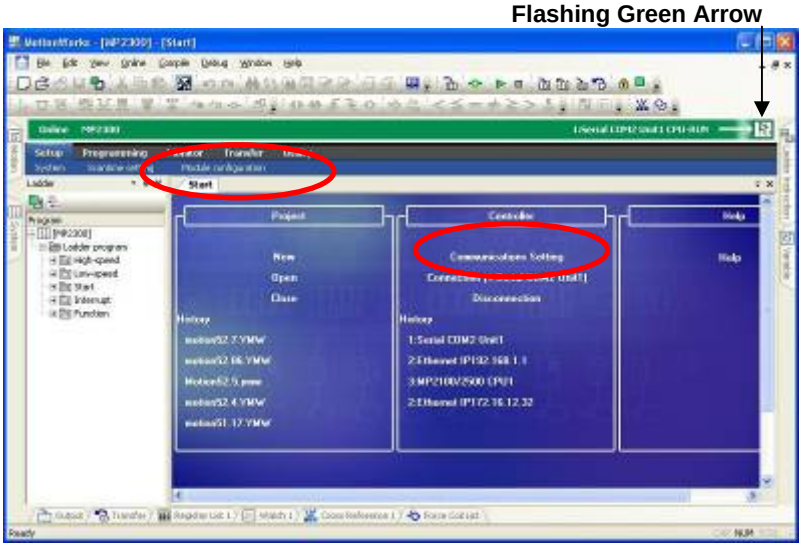
Figure 3: MPE720 Main Screen

2. Click COMMUNICATION SETTINGS and from the COMMUNICATION PORT, select SERIAL.

3. Click CONNECTION.

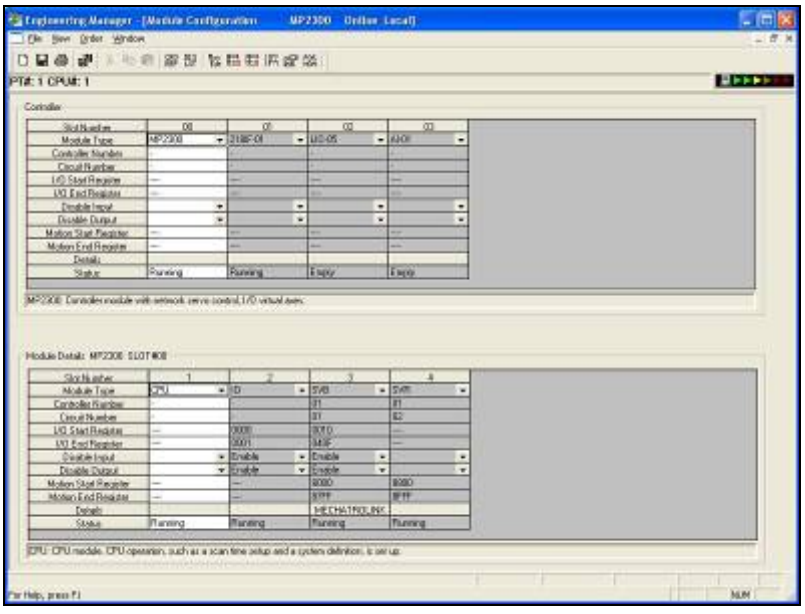
   The MAIN SCREEN appears with a green flashing arrow at the top tight corner, indicating that the application is online.

Flashing Green Arrow



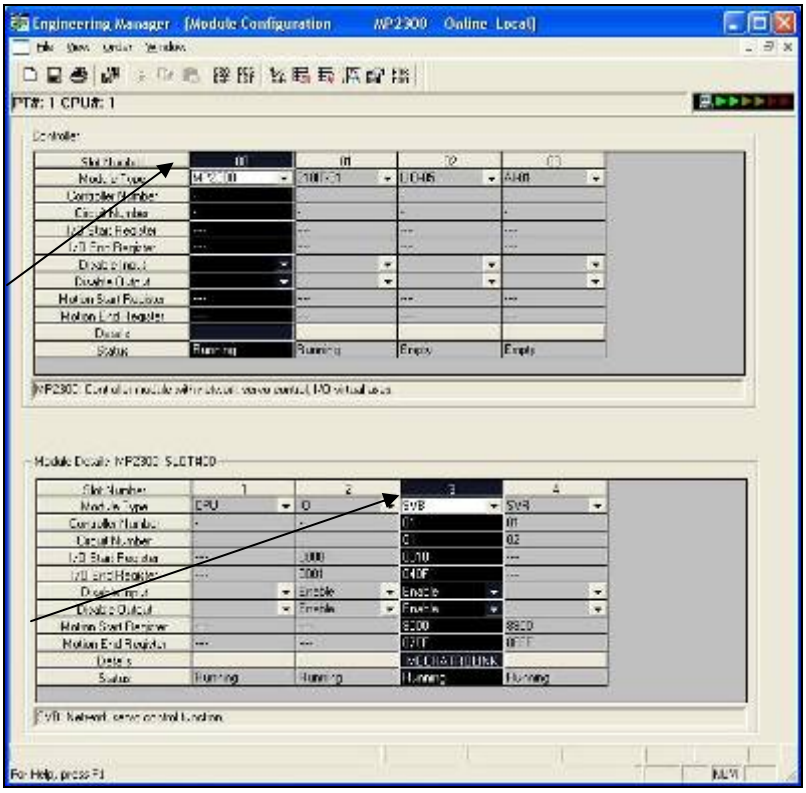
4. In the MAIN SCREEN, click MODULE CONFIGURATION.

   The MODULE CONFIGURATION window appears.



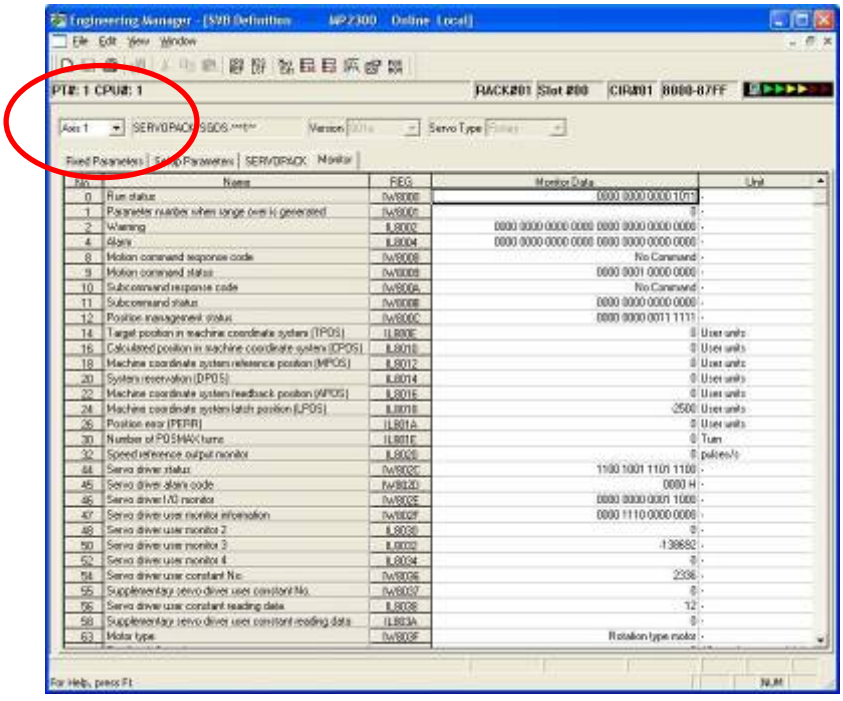
5. In the CONTROLLER group box, click the title bar of the first module, and in the MODULE DETAILS group box, double-click title bar #3.

The following window appears.



The SVB DEFINITION window appears.

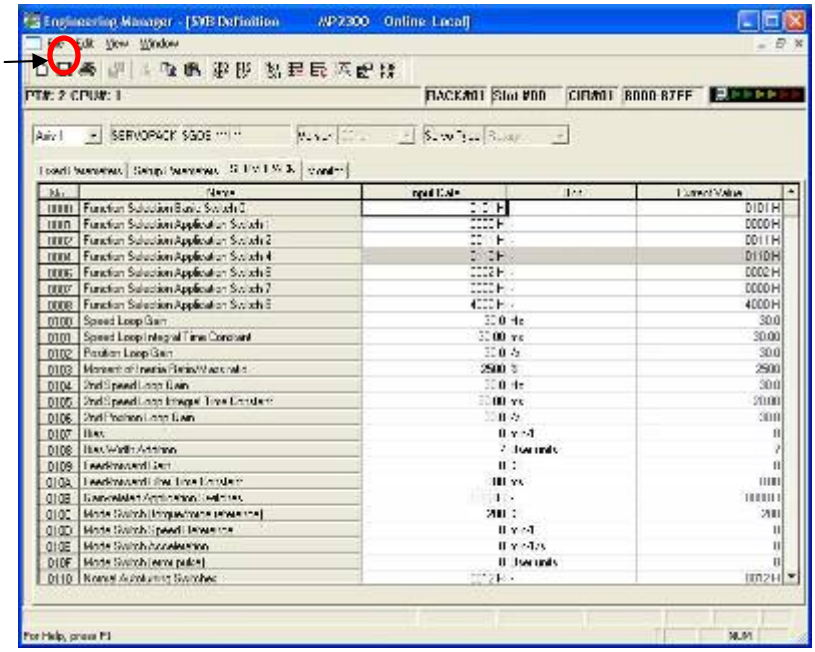
This window displays the driver's parameters.



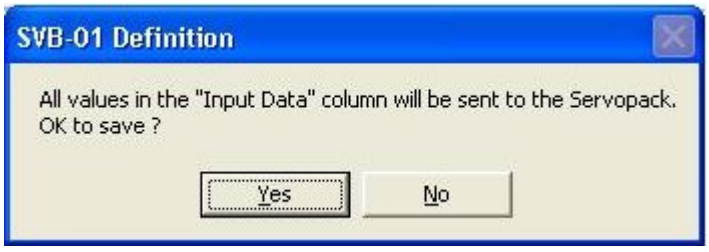
6. Select AXIS 1 and select the SERVOPACK tab.

   The following warning appears.

7. Click OK.



8. Click SAVE and click YES in the following dialog box that appears.



   You now have to repeat the previous three steps for AXIS 2, 3, and 4.

9. In the SVB DEFINITION window select AXIS 2 and select the SERVOPACK tab.

The following warning appears.

10. Click OK
11. Click SAVE and click YES in the dialog box that appears.
12. In the SVB DEFINITION window select AXIS 3 and open the SERVOPACK tab.

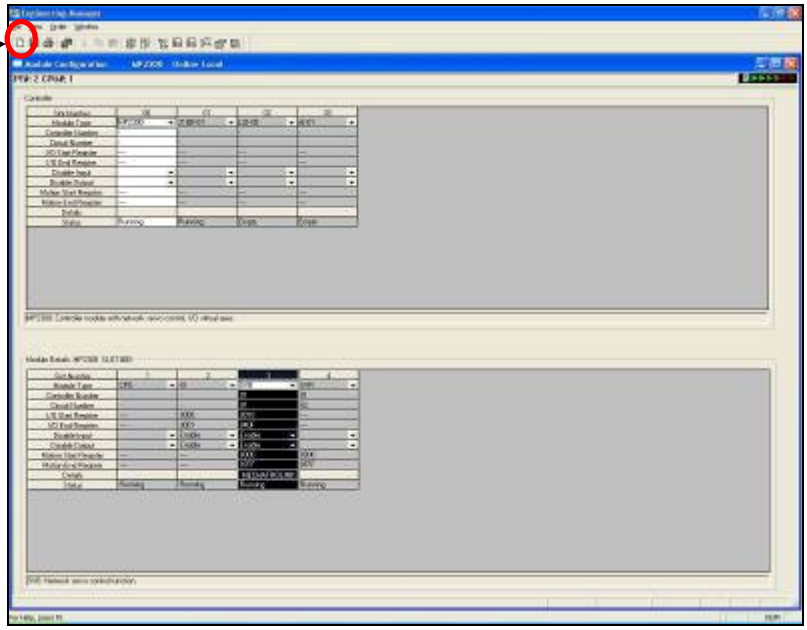
    The following warning appears.

13. Click OK
14. Click SAVE and click YES in the dialog box that appears.
15. In the SVB DEFINITION window select AXIS 4 and select the SERVOPACK tab.

    The following warning appears.

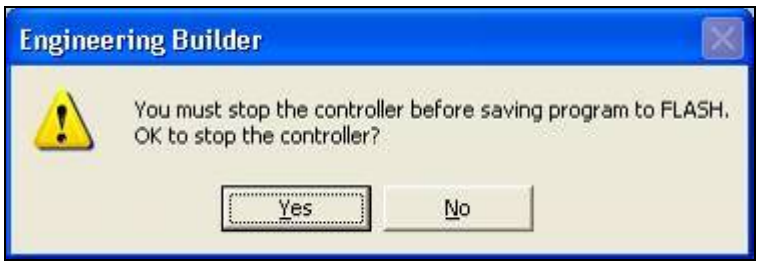
16. Click OK
17. Click SAVE and click YES in the dialog box that appears.
18. Click CLOSE to close the SVB DEFINITION window, but *not* the ENGINEERING MANAGER window.

    The MODULE CONFIGURATION window remains open.



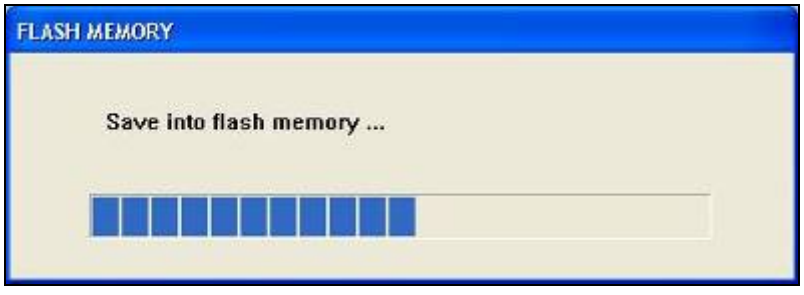
19. Click SAVE TO FLASH MEMORY and click YES in the following dialog box that appears.

The following message appears.



20. Click YES.

The progress bar appears.



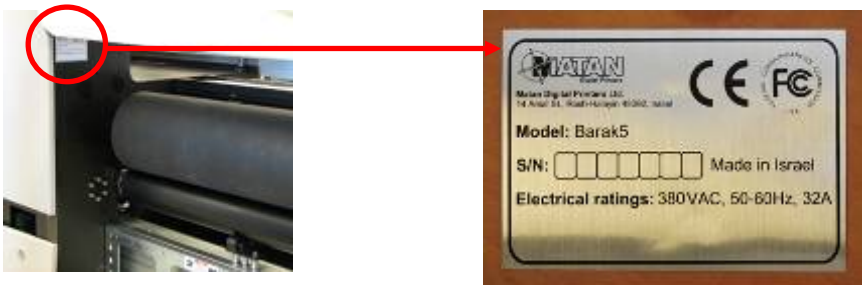
21. When the following message appears, click YES to run the CONTROLLER again, and close the MODULE CONFIGURATION window.

22. Close the MAIN SCREEN.
23. Shut down the Workstation.
24. Power OFF the printer.

Appendix A: Appendix A: Damage Report Form
(not for Print Head)

Customer's Name:	
Address:	
Barak5 Printer S/N*	
Faulty Part Name	
Details of faulty part:	
Remarks:	
Signed:	
Name:	
Position in Company:	
Date:	

* The Printer's Serial Number is displayed on the label located at the rear of the printer near the left end of the rollers, as shown below.



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